WHAT IS CLAIMED IS

1. A method of calibrating an unbalance measuring apparatus including

causing given calibration masses to rotate about a measuring axis in given axial and radial positions in calibration runs,

measuring the forces which result from unbalances caused by the calibration masses, and

evaluating the measured forces for calibration of the unbalance measuring apparatus,

wherein in a calibration run first and second calibration masses are caused to rotate simultaneously in first and second axial planes about the measuring axis.

2. A method as set forth in claim 1

wherein the calibration masses are of the same size.

3. A method as set forth in claim 1

wherein the calibration masses are of different sizes.

4. A method as set forth in claim 1

wherein the calibration masses are caused to rotate about the measuring axis at angular positions which are displaced through 180° relative to each other.

5. A method as set forth in claim 1

wherein the calibration masses are caused to rotate about the measuring axis in identical angular positions.

6. A method as set forth in claim 1

wherein the calibration masses are caused to rotate about the measuring axis at identical radii.

7. A method as set forth in claim 1

wherein the calibration masses are caused to rotate about the measuring axis at different radii.

8. A method as set forth in claim 1

wherein in addition at least one calibration run is effected with only one calibration mass in one of the first and second real calibration planes.

9. A method as set forth in claim 1

wherein the first and second calibration masses are fixed to a balanced test rotary member.

10. A method as set forth in claim 9

wherein prior to at least one calibration run residual unbalance of the test rotary member is measured and compensated in calibration of the measuring apparatus.

11. A method as set forth in claim 9

wherein after at least one calibration run residual unbalance of the test rotary member is measured and compensated in calibration of the measuring apparatus.

12. An arrangement for calibrating an unbalance measuring apparatus comprising

a measuring shaft,

means supporting the measuring shaft rotatably about a measuring axis,

mounting means for mounting a balanced test rotary member on the measuring shaft,

fixing means for fixing calibration masses to the test rotary member at fixing locations to which in a calibration run first and second calibration masses are fixed in different axial calibration planes,

measuring sensors adapted to measure forces operative at the measuring shaft when the test rotary member rotates, and

an evaluation means connected to the measuring sensors and adapted to evaluate the measured forces for calibration of the unbalance measuring apparatus.

13. An arrangement as set forth in claim 12

wherein the first and second calibration masses are arranged displaced relative to each other through an angle of 180° about the measuring axis.

14. An arrangement for calibrating an unbalance measuring apparatus comprising a measuring shaft, means supporting the measuring shaft rotatably about a measuring axis, and means for driving the measuring shaft in rotation,

the arrangement including

mounting means for mounting a balanced test rotary member on the measuring shaft,

fixing means for fixing calibration masses to the test rotary member at fixing locations to which in a calibration run first and second calibration masses are fixed in different axial calibration planes,

measuring sensors adapted to measure forces operative at the measuring shaft when the test rotary member rotates, and

an evaluation means connected to the measuring sensors and adapted to evaluate the measured forces for calibration of the unbalance measuring apparatus.